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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,951	02/28/2002	Russell C. Brown	M-9511 US	1216

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EXAMINER

NGUYEN BA, HOANG VU A

ART UNIT

PAPER NUMBER

2192

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,951

Applicant(s)

BROWN ET AL.

Examiner

Hoang-Vu A Nguyen-Ba

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2002.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-16 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/22/02.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the application filed February 28, 2002.
2. Claims 1-16 have been examined.

Priority

3. The priority date considered for this application is February 28, 2002.

Oath/Declaration

4. The Office acknowledges receipt of a properly signed oath/declaration filed February 28, 2002.

Information Disclosure Statement

5. The Office acknowledges receipt of the Information Disclosure Statement filed July 22, 2002. It has been placed in the application file and the information referred to therein has been considered.

Drawings

6. The drawings, filed February 28, 2002, are accepted by the Examiner.

Specification

7. The specification is objected to because the U.S. Patent Application No. of the related application, entitled "System Configuration Manager for Distributed System," is missing.

Claim Objection

8. Claims 1, 13-16 are objected to because of the following informalities:

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a. Claim 1: a conjunctive – and – should be added at the end of line 5;

b. Claims 13-16: the dependency of these claims should be from claim 12 instead of from claim 10 in order to be consistent with the preamble that recites a computer program product.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 9 and 14 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Pursuant to these claims, the limitation “invoking the second method [to] perform the first method on the second application-specific object” does appear to be found nowhere in the specification. For art rejection purposes, the limitation is interpreted to mean – invoking the second method [to] perform the second method on the second application-specific object –.

9. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly

pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 9 and 14 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9 and 14 recite the limitation “invoking the second method [to] perform the first method on the second application-specific object” in line 2. The limitation renders the claim indefinite because claims 9 and 14 include feature not actually disclosed and not enabling. Furthermore, it is unclear as to what actually are the functions of the second method since base claims 7 and 12 claim that the second method only comprises a second behavior of the second application-specific object. The scope of the claims is thereby rendered unascertainable. See MPEP 2173.05(d).

Appropriate correction is required.

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 1-6 are rejected under 35 U.S.C § 101 because the claimed invention is directed to non-statutory subject matter.

Statutory subject matter requires two things:

(1) it must be in the “useful arts,” U.S. Const., art. I, § 8, cl. 8, which is equivalent to the modern “industrial” or “technological arts,”

defined by Congress in the four categories of “process, machine, manufacture, or composition of matter” in 35 U.S.C § 101; and if it is,

(2) it must not fall within one of the exceptions for “laws of nature, physical phenomena and abstract ideas.”

Under the most recent Federal Circuit cases, transformation of data by a machine (e.g., a computer) is statutory subject matter provided the claims recite a “practical application, i.e., ‘a useful, concrete and tangible result.’” State St. Bank &

Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1600-01 (Fed. Cir. 1998).

With respect to claims 1 and 6, the language of the claims raises a question as to whether the claims are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. § 101.

Furthermore, the Office’s interpretation of claims 1 and 6 is that these claims do not expressly or implicitly require performance of any steps by a machine, such as a general purpose digital computer. Structure will not be read into the claims for the purposes of the statutory subject matter analysis although the steps might be capable of being performed by a machine.

On this basis, claims 1 and 6 are rejected under 35 U.S.C. § 101.

Claims 2-5, which depend from claim 1, is also rejected under 35 U.S.C. § 101 for the same reasons.

13. Claims 7-11 are rejected under 35 U.S.C § 101 because the claimed invention is directed to non-statutory subject matter.

Claim 7 recites “[a]n architecture” which does not appear to one of the four statutory categories defined by Congress. See paragraph 12, subparagraph 1). For art rejection purposes, claim 7 is interpreted to recite – A system – which is accepted to be equivalent to the statutory category Machine.

Furthermore, claim 7 recites a system comprising an object, a first application-specific object, a first subclass, a first method, a first behavior, a second application-specific object, a second subclass, a second method, a second behavior. These entities are merely software entities, i.e., computer programs per se. Applicants thus fail to disclose that these software entities are tangibly embodied in and executed by a piece of hardware and that their functions have practical applications which produce useful, concrete, and tangible results under the State Street Formulation.

On this basis, claim 7 is rejected under 35 U.S.C. § 101.

Claims 8-11, which depend from claim 7, are also rejected under 35 U.S.C. § 101 for the same reasons.

Double Patenting

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Long*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1993); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Voge*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminated disclaimer in compliance with 37 CFR 1.103(c) 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 1+2, 6, 7+9, 12+13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1+3 of copending U.S. Patent Application No. 09/898,876. This is a provisional double patenting since none of the applications has been issued.

Instant Claims 7+9	Copending Claims 1+3
An architecture comprising:	A factoring system comprising:
an object corresponding to an instantiation of a class	
a first application having a first subclass of the class, wherein a first application-specific object is an instantiation of the first subclass;	a plurality of first-level subclasses of the domain object superclass, an instantiation of one of the plurality of first-level subclasses corresponding to a domain object, the domain object representing an item in a factory
the first subclass comprises a first method comprising a first behavior of the first application-specific object; and the first behavior of the first application-	a service, the service providing an operation related to the domain object, the service comprising at least one component, each of the at least one

specific object corresponds to a first behavior of the object;	component being operable to perform the operation related to the domain object; and a domain application comprising an implementation of one component of the at least one component of the service of the factory system to perform the operation related to the domain object
a second application having a second subclass of the class, wherein a second application-specific object is an instantiation of the second subclass;	a second-level subclass of one first-level subclass of the plurality of first-level subclasses of the domain object superclass of the factory system, an instantiation of the second-level subclass corresponding to an application-specific domain object; and
the second subclass comprises a second method comprising a second behavior of the second application-specific object; and	the implementation of the one component corresponds to a method of the application-specific domain object, wherein the method is operable to perform the operation on the application-specific domain object,
the second behavior of the second application-specific object corresponds to a second behavior of the object	
the architecture of claim 7 wherein invoking the second method performs	wherein the performing the operation on the application-specific domain object

the second method on the second application-specific object such that the object communicates as if the second method were performed on the object.	enables the domain object to communicate as if the operation were performed on the domain object.
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Although the conflicting claims are not identical, they are not patentably distinct from each other because the invention recited in these claims is directed to subject matter that is an obvious variation of each other.

Claim Rejections – 35 U.S.C. § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 1-16 are rejected under 35 U.S.C. § 102(b) as being anticipated by Crnogorac et al. (“Crnogorac”), Classifying Inheritance Mechanisms in Concurrent Object-oriented Programming.

Claims 1 and 6

Crnogorac discloses at least:

*identifying a first method and a second method to be performed on an object, wherein the object corresponds to an instantiation of a class (see at least section 5; e.g., “... each method is separated into a *guard* part, and a *functionality* part...”);*

developing the first method in a first application having a first subclass of the class, wherein a first application-specific object is an instantiation of the first subclass (see at least section 5; e.g., the guard part); and

concurrently developing the second method in a second application having a second subclass of the class, wherein a second application-specific object is an instantiation of the second subclass (see at least section 5, the functionality part).

Claim 6

Since claim 6 recites similar features of claim 1, the same rejection is thus applied.

Claim 7

Since claim 7 recites an architecture comprising software entities that perform the same method steps of claim 1 or 6, the same rejection is thus applied.

Claim 12

Since claim 12 recites a computer program product comprising programming instructions stored on a computer-readable medium, programming instructions that perform the same method steps of claim 1 or 6, the same rejection is thus applied.

Claims 2, 8 and 13

Rejections of base claims 1, 7 and 12, respectively are incorporated.

Crnogorac further discloses *invoking the first method, wherein the invoking performs the first method on the first application-specific object such that the object communicates as if the first method were performed on the object* (see at least section 5).

Claims 3, 9 and 14

Rejections of base claims 1, 7 and 12, respectively are incorporated.

Crnogorac further discloses *invoking the second method, wherein the invoking performs the second method on the second application-specific object such that the object communicates as if the second method were performed on the object* (see at least section 5).

Claims 4, 10 and 15

Rejections of base claims 1, 7 and 12, respectively are incorporated.

Crnogorac further discloses *modifying the first method, wherein the modifying does not affect the second method* (see at least section 5).

Claims 5, 11 and 16

Rejections of base claims 1, 7 and 12, respectively are incorporated.

Crnogorac further discloses *modifying the second method, wherein the modifying does not affect the first method* (see at least section 5).

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang-Vu "Antony" Nguyen-Ba whose telephone number is (571) 272-3701. The Examiner can normally be reached on Tuesday-Friday, 7:15 to 17:45.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam can be reached at (571) 272-3695. The fax

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phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**ANTONY NGUYEN-BA
PRIMARY EXAMINER**

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March 5, 2005